

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

62.31 1900

GINSENG NURSERY.



Four-Year-Old Plants Growing in Forest Nursery Beds.

J. W. SEARS,
Ginseng
Nurseryman.

PRICES FOR
Seeds AND Roots
FOR PLANTING
Given on Application

✂ Why it is a Profitable Plant to Cultivate. ✂



NOTE.—These views are of my former Ginseng Nursery. I have purchased a large farm five miles East of Somerset, where I expect to locate and move my Nursery stock as soon as practicable.

HOW I BECAME INTERESTED IN THE PLANT.



I began the cultivation of Ginseng in the year 1891, in a small way, with but little means. Previous to this time I had for a few years been buying and selling the dry root. I saw how eagerly it was sought after, and that in the way the rich hillsides, and coves or valleys that produced the roots were being cleared, and cultivated in corn and other crops, that the wild roots were now becoming scarce, and that in a few years it would be exceedingly hard to find, and the demand would be greater than the supply. This increasing scarcity of Ginseng, together with the high prices paid for it, drew my attention to the cultivation of the plant for market, and

that it would be a profitable crop to cultivate. Many thought that on account of its slow growth the cultivation would prove unprofitable.

There is no question but that the plant can be as easily grown as other cultivated plants, provided it is furnished with the right kind of soil and with shade.

It is my plan to follow nature in her work as closely as possible, and consequently I began planting the roots and seeds in moist, fertile soil, in the forest, where there was plenty of natural shade; but with the experience that I now have I think garden culture, with artificial or lattice shading, is decidedly the best; yet one can grow it successfully in the forest. Lattice shade is more manageable and economical of space. In the forest the plants are checked in growth, to some extent, by the trees absorbing the moisture, while under lattice shade they have a more thrifty appearance. Open-field or garden soil, suitable for growing vegetables, is preferable; old, worn-out land can be made profitable by planting it with Ginseng, it made rich; also unfertile forest land. The timber can be used in building fence, lattice work, etc., while the refuse wood may be burned into ashes to help enrich the soil. Some manure or commercial fertilizer should be used.

After I began its cultivation, I desired to learn all I could about the plant, and how to grow it successfully. By inquiring, I learned of another grower with two or

three years' experience; I purchased his instructions, with a few seeds, for \$10, from which I learned some good points. Since then I have had considerable correspondence with the largest and most successful growers in the United States, and many who are just beginning to grow it. I have letters from a number of my customers stating that they are successfully growing the plant.

It is a Profitable Plant to Cultivate.

All Florist and Seedsmen should grow the plant. Persons who like flowers will find the Ginseng plant to be beautiful, as well as valuable, to grow in pots or boxes.

Below I give you a copy of two letters, from Sam'l Wells Co., Cincinnati, O., and J. L. Prouty's Sons, New York:

CINCINNATI, O., February 28th, 1900.

MR. J. W. SEARS, Somerset. Ky.

Dear Sir:—In reply to your letter of the 24th, we would state that cultivated Ginseng brings different prices according to the section in which it is grown. The price paid you, \$6.50, for your cultivated root was the highest we have paid for any southern cultivated root. Cultivated root is worth about 25 per cent. more than wild root, on the average we should say. The root we received from you was much more smooth in texture, dense in fiber, larger and heavier than the wild root, which from

your part of the country is always small, rough-coated, light and spongy in fiber. The heavier and more dense the fiber the better the quality of root always.

We trust to be able to handle your cultivated root again next season and you can depend upon our paying you the very highest possible price.

Very truly yours,

SAM'L WELLS & CO.

NEW YORK CITY, March 2nd, 1900.

MR. J. W. SEARS, Somerset, Ky.

Dear Sir: -Reply to your letter of 24th Feb'y. We had a small shipment, 5½ lbs. of cultivated Ginseng root, the roots having been cultivated 4 to 5 years in Central New York State, which was of good size and heavier than the wild root.

This root was received last week in September, 1899, and was sold by us at \$8 per lb.

Hoping this information may be of some use to you in planning your proposed book on Ginseng Culture, we are

Yours truly,

J. L. PROUTY'S SONS.

My lowest estimate on one acre of Ginseng, six years old, at the present prices, is \$40,000.00 for the roots alone, dried for market.

Ginseng will endure a drouth as well, if not better, than any other crop.

Frost, which is dreaded so much in growing other plants, never injures Ginseng plants, seeds or roots in any way.

My plants produced over five bushels of berries season of 1900. This is the outcome of a small start. You will be surprised if you will make a calculation of how many seeds one root will produce in twelve years. Five seeds for the first crop, twenty for the second, fifty for the third, and one hundred for each remaining crop; remembering to count what each seed crop will produce during the time. Seeds planted will produce roots that bear seeds the third year. It takes about 200,000 seeds to plant an acre. There are about 650 seeds in one ounce.

The Nature of the Ginseng Plant.—Ginseng is of such nature that it reproduces or propagates itself by means of its seed only. When roots are planted they produce seeds, when seeds are planted they produce roots. The bud at the top of the root makes the next year's plant and seed crop. The roots send up each year a new stem, bearing at the top leaves, flowers, and finally berries. The berries are from one to four seeded, and when ripe of a bright red color. Each seed in the berry produces a separate root and stalk. Many roots are branched, having two or more roots. A few roots have two or three stalks, each stalk producing berries. (See my cut of the Ginseng Plant.) The Chinese use the root extensively; it is said to be their one medicine for all diseases.

For a more complete history of the plant and its nature see bulletin No. 78.



GINSENG PLANT.

Ky. Agr. Exp. Sta., by Prof. H. Garman, Lexington, Ky., who visited my Ginseng Nursery in 1898. He gives a good description of my Nursery, as well as the size, weight and illustrations of roots, seeds and plants, that I furnished him.

I consider Ginseng the most profitable crop grown, as but little land is required, and if properly cared for, will yield a greater profit than many large farms. It requires no great amount of interest on money invested in land. No expense in building large barns in which to store grain. No great expense for stock, tools, hired hands, etc. It is also a beautiful plant to cultivate, most any lady would admire its beauty and aid in its cultivation. Now is the time to get started in this new and profitable enterprise, while in its infancy. As the demand for seeds and roots to plant is so great, I advise everyone intending to plant to place their orders as early as possible.

When to Plant Seeds and Roots.—Seeds may be planted when the berries are harvested, or if stratified they may be planted any time before germination. Roots are planted in the fall after the berries have ripened, or early in the spring, before the top puts up. The variation of the size, weight, etc., of roots, are so great, I sell by weight, as I think it the most correct way. For example, 100 2-year-old roots,

large size, weigh two pounds, while 100, small size, weigh one pound. You get more root, in buying by weight, if not as many roots.

Profitable Plant to Cultivate.

This Shows the Increase and Profit from Planting Roots.—In 1895 I planted about 1 lb. of seedling roots in a bed 4 x 22 feet, cultivated 2 years, then dug them; found they had increased 18 pounds, besides the large seed crops each year, which was of great value. In 1898 I planted 27½ lbs. of roots in two beds, one 6 x 100 feet, the other 6 x 70 feet, cultivated 2 years, dug them fall of 1900, the beds contained 91 lbs. of roots, showing an increase of 63½ lbs., besides the seed crops, which was about 3 lbs. Roots medium size, and planted 6 x 10 inches apart in beds. By planting roots you get, by their growth, a great gain in weight, besides the seed crop, which is immense. Some four-year-old roots produce one hundred and thirty-seven seeds.

Increase and Profits from Planting Seeds.—Fall of 1899 I sold twenty-two and seven-sixteenth pounds of cultivated roots from the seeds, dried, for \$6.50 per pound; a small fraction over 15 cents each for four-year-old roots.

In November, 1900, I took from my Nursery fifty six-year-old cultivated roots from the seeds; their weight, green, was eight pounds; dried, three and one-sixteenth

pounds, and sold for a fraction over 36 cents each. It will be remembered that these roots produced a fine seed crop each year after the first. The two best roots together weighed eight ounces green; when dried one weighed one and one-half ounces, the other, one and three-fourths. The two roots together sold for a fraction over \$1.21.

My sales from 1891 to 1900 amounted to \$1,969.55; in 1900, \$2,206.84; January, 1901, \$453.07; have orders for Spring delivery amounting to \$1,426.00. Total sales from January 1st, 1900, to date (Feb. 14, 1901), \$4,085.91.

General Instructions.

Its Natural Requirements.—What it wants most is soil, rich in vegetable matter, moisture and shade. These are the three principle conditions for the successful growth of the plant. Avoid wet or swampy land if possible, yet if used at all it must be well drained.

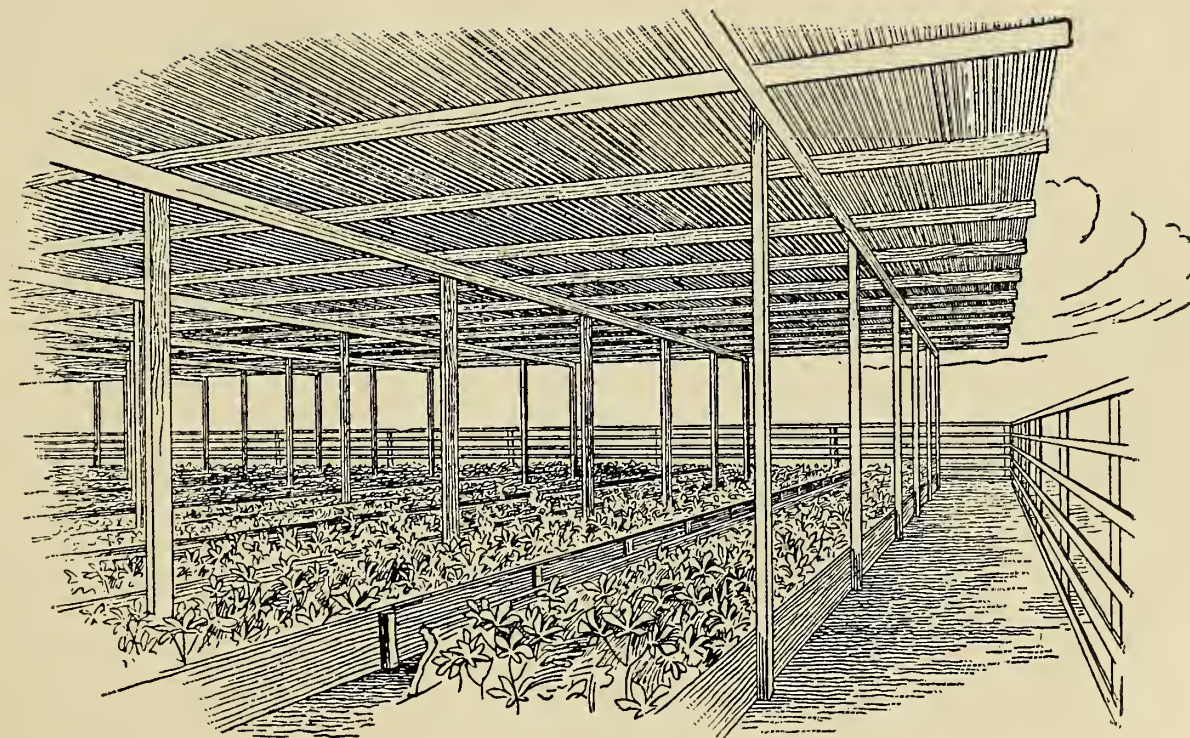
Garden Culture.

Preparation of The Soil.—To prepare the ground, work deep, making it loose and porous, remove all loose rocks and roots, if any in the soil. Enrich by working-in unleached wood ashes, humus, (decayed vegetable matter), leaf loam, manure, bone meal, or some good commercial fertilizer. If fresh manure is to be

used, apply it in time to be well rotted before planting. Make compost heaps of dead leaves, crumbled remains of logs and stumps, raked up and mixed with soil, where they will decay and be ready for use, add all weeds, decaying vegetable matter, brush, etc., to the heaps; leaves should be used freely; these heaps can be prepared or secured in the forest.

Preparation of The Beds.—Make beds four feet wide, any length convenient. Leave an alley between the beds eighteen inches or two feet wide. Remove the loose soil from the alleys, placing it on the beds by using a spade or hoe. Make a frame work around each bed by using a six-inch board; (a pole, flat-rail, or rocks, will do); then make the top of the beds level by using a rake. The frame-work around the beds is best, but may be left off if desired.

Planting the Seeds.—I prefer when convenient and possible, to plant the berries just as they are picked off the plant, as it saves time, for the seeds must be kept fresh. Where there are more than one seed in a berry, they may be separated and plant one seed in a place if preferred. Mice do not destroy the seeds when planted. The surface of the beds must be of loose, rich soil. Make a small trench or furrow across the bed, plant the berries six inches apart in the row, seeds four inches, cover one-half to one inch deep. In covering you make another furrow eight



GINSENG GROWING UNDER LATTICE SHADING.

inches from the one just planted. Continue in this way until the bed is finished. But if the surface of the bed is not the kind of soil desired, cover with rich soil from your compost heap. After planting, the beds are covered with dead leaves, same as in the forest. Lay on brush, to hold leaves in place, where there is danger of wind blowing them away. When the young plants are up all weeds must be pulled to give them as much room as possible. Later on they cover the ground so completely that but little attention is required.

In my Nursery beds, many of the berries which ripen early in the season, and some of them are ripe as early as July, if planted the succeeding fall, the seeds will germinate the next spring, but berries from plants ripening late in the season, if planted, the seeds will germinate at the end of about eighteen months, a year from the following spring.

Four to six years from the time the seeds are planted, the roots have reached a good size and weight; they should be dug in September or October when they have ceased growing for the season and have their greatest weight. Never transplant the roots from one bed to another unless it is very necessary. Give proper distance when seeds are planted and let grow until marketable size. Saves much labor, besides it injures the growth to some extent the first year after transplanting, also by

transplanting young seedling roots, many of them grow crooked and branched; while whole, solid roots are best for market.

Planting The Roots.—The roots are planted in rows like the seeds, giving more space for the larger ones. Care must be taken to have the bud at the top of the root, covered about two inches deep with loose, rich soil. The roots should not be set in a crooked position, as they will grow that way. Nice, straight roots, all solid, is more desirable. Finish up the beds by applying leaves; lay on brush to hold leaves in place like the seed beds, if needed. Use a board to stand on while planting, as the bud or roots might get injured by stepping on the beds. The bud makes the next year's plant, and seed crop.

Managing The Crop.—The plants must be kept free of weeds or grass. In the fall, after the plants have died down, give the beds a good dressing of ashes, humus, manure, or leaf loam; you will now find your compost heap to be of great help. Give the beds a mulching of leaves for protection during the winter and to retain moisture in summer. This should be done each year until ready for market. If straw, etc., is used for mulching, great care must be exercised in keeping away all mice.

Fertilizers.—Commercial fertilizer, if used on the beds while the plants are

growing, will give good results, also unleached wood ashes. They can be put on the beds without removing the leaves.

Irrigation.—Where one is prepared to irrigate the beds or water the plants, will find it to be of great advantage. I think Ginseng can endure a drouth as well, if not better, than any other crop. When we have rain regular during the season, my seed crops are much better than when we have less rain. This is a very important point to look after.

Artificial or Lattice Shading.—To make a lattice shade, set posts upright in the ground eight feet apart each way; on their top or side near the top, nail a frame-work of scantling or flat-rails; have these pieces four feet apart one way, on this nail four-foot laths, slats or strips, three-fourths of an inch apart. Sections may be made four feet wide and eight feet long and fastened on the frame-work; in winter they can be stored away in the dry, where the snow-fall is heavy it is necessary to remove them during the winter season, or have them strong enough to withstand the weight. Here in this State they may be made fast to the frame-work, as there is no danger of being broken by the snow. For convenience, make the frame-work high enough to walk erect under it. This protects the plants from the direct rays of the sun, and at the same time allows a free circulation of air. On the sides of the

beds exposed to the sun it will be necessary to erect a vertical shade. For a cheap shade throw a lot of green brush on the frame-work in place of the laths or slats. On sloping ground I let the slats run across the slope, if they were ranging up hill the water when it rains would follow the slats and not be evenly distributed on beds.

Forest Culture.

Preparation of Soil.—Grub the undergrowth, leave saplings and large timber to make sufficient shade. Care must be exercised in this case not to remove so many trees as to expose them too much to the sun. I made this mistake on a portion of my ground in my old Nursery, yet I supplied it by using lattice or brush shading. Dig the ground loosely, removing all loose rocks. Tree roots should be cut away where they lie near the surface. Be sure not to cut any roots near the trees that will cause them to die. See that the beds have plenty of leaves to protect them during winter and summer. Lay on brush to hold the leaves in place if needed. All brush from all beds must be removed in the spring.

Roots for Market.—Dig the roots in the fall of the year, wash clean, lay in wooden trays, let dry in sun, or in a room where there is a fire. The roots must not get too hot, but let dry slowly in warm air. Pack roots when dry in boxes or barrels for shipment. Cincinnati, New York, Boston, Philadelphia and San Francisco, are



GINSENG GROWING IN FOREST NURSERY BEDS.

good markets for the dry root. Sam'l Wells & Co., of Cincinnati, Ohio, are buyers of the root; J. L. Prouty's Sons, New York, handle the root on commission. I have shipped considerable root to both firms.

How To Stratify The Seeds.—Gather the berries and place in a thin cloth or sack (a flour sack is good) by pressing, thus the pulp is removed from the seeds. Although it is not necessary to remove the pulp, pack the berries if desired. Take a box the size desired, not quite tight in the bottom, put in a layer of sifted soil one inch deep, then put in a layer of seeds or berries, and another layer of soil, continue this way until the box is full or all the seeds are packed; let the last layer of soil be three inches deep with a layer of moss on top, then place a net of fine wire or a piece of perforated tin over the box to keep out mice. I let the boxes remain outdoors in my Nursery by letting them in the ground level with the top, but if they begin to get too dry they should be sprinkled with water; if too much rain, cover with boards or remove under shed. The boxes when packed may be put in a cellar if preferred. Freezing does the seeds no harm, but if they get too wet they may rot, and they must not be allowed to dry out, but keep damp and moist. Roots may be kept for a while like the seeds, by being careful not to let the roots touch each other in packing, then plant in the spring. In the spring I unpack my seeds, assort out all that

are in the act of sprouting or have a seed-bud ready to germinate, and plant them. Those that are not in the act of germination, I water test, and repack again in boxes, until fall or spring, then plant or dispose of. To water test the seeds put them in water, take off all that will float, they are no good.

The Enemies of Ginseng.- Moles must be kept out. The best way to get rid of them is to watch for them and when one is observed moving the soil, quickly step in behind it, dig it out and destroy it. We have here a ground mouse with a short tail like that of the mole; they eat the roots. The only remedy I know for them is poisoned bait. I soak a few grains of corn in water with strychnine, drop in their burrows; they follow in the burrows made by the mole, or work along just beneath the leaves on the beds in the loose soil, and begin to eat on the top of the roots. We have but few of them, two or three is all that has ever given me any trouble. Then we have what is called field or woods mice; they eat the seeds from the seed-head while the berries are ripening; they do not eat the seeds after they are planted. Before the berries begin to ripen, I set a few dead-falls, and in a few nights I have cleared away the mice. I take two pieces of boards, two feet in length, one inch thick, and one or one-and-a-half feet wide, make fast together at one end with strips of leather or hinges, let top board extend over two inches, and

set on a figure 4 support, bait with corn, the bait stick must be small in order to let the two boards come together to catch the mouse; place a small stone on top for weight. I have noticed a little white fly, that sometimes get on the stem of some of the plants, near the seed-head, they can be removed quickly with the thumb and finger. If allowed to remain on the stem they will cause it to perish. I sometimes sprinkle ashes lightly on the growing plants; this I think is a good preventive. Chickens, pigs, etc., must be strictly kept out; it will not do to let them in at all. The Ginseng beds should be enclosed with a strong slat fence.

Improvement of The Plant.—In my Nursery I have plants that produce larger seeds than other plants of like size; in planting the large seeds I find that they make larger roots than small seeds do in the same length of time. I also have a great many plants that produce ripe berries much earlier than others, and their seeds come up the first season, one year earlier than those ripening late in the season. If we plant the large early ripened seeds in separate beds, and continue this from season to season, we will soon have a quality of seeds and roots that will surpass the present quality. If by doing this we get a quality of plants that produce seeds that will germinate the following spring, after being planted in the fall, and make larger roots in less time, we certainly will be amply paid for our trouble.

Carefully follow the instructions given here, and you can't help but succeed. It will all become natural to you as you advance in the business. Plant every root and seed that you can get, there is money in it. If in these instructions you find any points not plain to you, I will be pleased to help you. If at any time you discover other enemies not mentioned in this, you will please inform me at once; also any new point of interest that you will find, please advise me, and I assure you that I will gladly return the favor, for I yet think there is much to be learned about Ginseng.

Experiments.

I am making some very important experiments—have succeeded in getting plants from seeds in the spring that were gathered and planted the fall before. I have also planted dry seeds that come up; it is claimed that dry seeds will not germinate. I have great confidence in my experiments and believe that they will prove successful. This will greatly help our business; and when I have fully tested the experiments, if they prove to be a success, I will give my customers and correspondents the benefit of them. Will be pleased to hear from other growers on these points.

The Cultivated Root.

The cultivated Ginseng root will in a few years take the place of the wild root

in the market; then we will have better prices and a better trade. We cannot expect a fair price for the cultivated root until we place on the market a sufficient quantity to give it a market value. And I want everyone who receives my circular to show it to their friends and neighbors, and encourage them to begin the cultivation of the plant. If you are not interested in the plant, or not situated so as to grow it, will you please hand this circular to some one that you think will probably engage in its cultivation.

In 1897 our exports to China were only \$840,686.00. The American Consul at Amoy, China, in his annual report to the State department makes the statement that it is possible to market annually in China \$20,000,000 worth of American ginseng roots. So you see there is no danger of an over production.

I will be pleased to exchange any point of experiments with other growers.

To those who have purchased seeds or roots of me, I make this special request: That you write me a personal letter giving your experience, success or failure. Letters of this kind will be of mutual benefit to all parties interested.

All those who have seeds to sell will please write to me, stating price per ounce or pound.

This circular alone will be mailed on receipt of 10 cents. Those ordering seeds or roots will receive a copy free.

I invite correspondence and will gladly answer any question that you may wish to ask in relation to the cultivation of Ginseng.

Hoping to hear from you soon, I am

Yours very truly,

J. W. SEARS, GINSENG NURSERYMAN.

Box 53. SOMERSET, KENTUCKY.

February 14th, 1901.

S. M. BOONE, JR.,
BOOK AND JOB PRINTER,
SOMERSET, KY.

